

May 11, 2001

MEMORANDUM TO: Ashok C. Thadani, Director
Office of Nuclear Regulatory Research

FROM: Thomas L. King, Director /RA/
Division of Risk Analysis and Applications
Office of Nuclear Regulatory Research

SUBJECT: MEETING WITH WESTINGHOUSE AND OTHER INTERESTED
STAKEHOLDERS REGARDING THE INTERNATIONAL REACTOR
INNOVATIVE AND SECURE (IRIS)

On May 7, 2001, the NRC staff met with representatives of the Westinghouse (Westinghouse Science & Technology) and other interested stakeholders to discuss The International Reactor Innovative and Secure (IRIS) design, technology and the potential interest by Westinghouse in NRC formal pre-application review activities on IRIS. The purpose for the meeting was to introduce the IRIS design to the staff, to explain the importance of staff feedback and to outline near-term testing plans. The meeting was attended by representatives from industry, academia, and other external organizations. Attachment 1 contains a list of attendees.

In his opening remarks, Farouk Eltawila, (NRC) explained that the primary purpose of the meeting was for the NRC staff to learn more about the design and safety approach of IRIS and to understand Westinghouse's specific interests, plans and schedule for formally interacting with the staff on the IRIS in the future. Following introductions of the meeting attendees, Dr. Mario D. Carelli, Westinghouse Science & Technology gave the Westinghouse presentation on the design and development plans for IRIS.

IRIS is a modular light water reactor that emphasizes proliferation resistance (e.g., long core life) and enhanced safety. The IRIS "safety by design" approach utilizes an integral vessel configuration with no large diameter external primary piping, has a high degree of natural circulation, and maintains a large water inventory inside the vessel to both slow transient evolutions, and keep the core covered during accident conditions. According to Westinghouse the IRIS concept utilizes pressurized water reactor (e.g., fuel design) technology arranged in design configuration that allows for passive accident decay heat core cooling. Additional IRIS design information and safety characteristics are provided in a Westinghouse meeting handout which is included as Attachment 2.

The design, development and funding for IRIS involves a consortium of domestic and foreign entities led by Westinghouse, which is responsible for overall coordination leadership and licensing-related interactions with the staff. Recently, the number of consortium members has increased significantly and with it the overall level of funding for the project. Technical and

economic feasibility studies by the consortium have been completed and the consortium believes that the IRIS design and technology can provide a viable source of electric power which can compete in the commercial power markets. Their schedule calls for the preliminary design to be completed at the end of 2002 with a pre-application submittal to be completed at some date thereafter. The current Westinghouse schedule involves design certification in 2007 and first-of-a-kind deployment in the 2010 to 2015 time frame.

Westinghouse's primary interest at this time would be to interact with the staff on a planned near-term test program that they believe needs to start in 2002. The near-term elements of the test program would focus on selected high priority tests. Although Westinghouse indicated that they would like early feedback from both the NRC staff and ACRS on the design and the planned tests (since it is critical to the progress of the IRIS design), they have not yet formally requested to interact with the staff on pre-application activities on IRIS. The staff suggested Westinghouse to do so in order for the staff to allocate resources.

For further Information, please contact Thomas L. King at (301)-415-5790 or tlk@nrc.gov.

cc: SECY
OGC
OCA
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Attachments: As stated

Distribution: w/attachments
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w/o attachments

WTravers	TKing	RTripathi	MMayfield	FEltawila
SRubin	ALevin	CEmeigh	TKress	MEI-zeftawy
SMorris	RCarusso	SArndt	GBagchi	KErwin
JGolder	BJazinski	RBarrett	DCarlson	EBenner

ACubbage

All attendees listed in Attachment 1

***See previous concurrence**

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